UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,765	01/25/2001	Meir Feder	14531.107.1.4	7763

			EXAMINER
47973	7590	04/20/2006	TRAN, HAI V

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ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/770,765	FEDER ET AL.
	Examiner	Art Unit	
	Hai Tran	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 February 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-60</u> is/are pending in the application.

     4a) Of the above claim(s) <u>1-29,36,40-42 and 46</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>30-35,37-39,43-45 and 47-60</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>09/05</u>

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 7-05)   Office Action Summary   Part of Paper No./Mail Date 04142006

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 02/06/2006 have been fully considered but they are not persuasive.

Applicant argues, "Day, however, does not disclose or suggest selecting compression parameters and degrading image quality based on a function of types of data to be displayed and the client capabilities for differentially converting the data into compressed video streams responsive to an instantaneous resource restriction." Applicant further argues, "Applicants respectfully note that this cited section of Day relates to an initialization and communication process that is required in Day before selected media files can be presented to a client."

In response, the Examiner respectfully disagrees with Applicant because 1) Day encodes video files having the same characteristics to be compatible with or match the communication link (resource/bandwidth/rate of the communication link) and the resolution of the display system (Col. 6, lines 15-25). As such, Day meets "selecting compression parameters and degrading image quality based on a function of types of data to be displayed and the client capabilities for differentially converting the data into compressed video streams responsive to an instantaneous resource restriction".

2) Day initialization and communication process is done after the selected media files (...when any of the files are called for presentation, several initializing processing steps are required before the selected file or files can be presented...Col. 5, lines 53-65+) so to ensure that all of the selected videos include the same operating

characteristics, i.e., encoding rate of the video vs the transfer rate of the communication link, the play rate vs the display scan rate **and** <u>resolution</u> of the display device. As such, initialization and communication process that is required in Day is NOT done before selected media files can be presented to a client, as alleged by Applicant.

Applicant further argues, "Day does not disclose or suggest that such encoding is selected based on a function of the type of data" and further argues, "Day is silent with respect to selecting an encoding rate or degrading image quality based on a function of any particular type of multimedia file. Rather, Day discloses <u>adjusting encoding rates</u> based on the capabilities of <u>both</u> the communication link and the display device."

In response, the Examiner aggrees with Applicant that Day discloses <u>adjusting encoding rates</u> based on the capabilities of <u>both</u> the communication link and the display device. As such, Day discloses that encoding is selected based on a function of the type of data, i.e., encoding rate of the video vs <u>the transfer rate of the communication link</u>, the play rate vs <u>the display scan rate</u> **and** <u>resolution of the display device</u>. Day further discloses degrading image quality based on a function of any particular type of multimedia file because , at least, based on the resolution of the display device, Day encodes the selected video file according to the resolution of the display, for example if the selected video file is encoded with high-resolution (image quality) then Day system re-encodes selected video file to the same resolution of the Display device, i.e., low-resolution display device. Because of that, Day discloses degrading image quality based on a function of the resolution of the display device. Moreover, Applicant further

admits that by "Day at best discloses degrading image quality by adjusting encoding

rate" !

In summary, the Examiner maintains the rejection in view of the above

discussion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 30-35, 37-39, 43-45, and 47-56 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Adams (US 6044396) in view of Day et al. (US5996015).

Regarding Claim 30, Adams shows a system that receives data from the

plurality of sources and a method of bandwidth allocation for transmitting video on a

cable network comprising identifying compression parameters to be used to

compress the data that is received from the sources to a desired depth of

compression (col. 5 lines 10-50, encoding rate determined by the bandwidth

availability), associating the compression parameters with a set of values and

threshold ranges (col. 5 lines 15-50, col. 6 lines 15-50, using parameters of B buffer

fullness, T buffer threshold, and Cm maximum rate to determine proper encoding

rate), receiving data from a plurality of data sources a plurality of data sources (col. 2

lines 27-4 l , col. 4 lines 35-50), differentially converting the data sources into

compressed video streams responsive to an instantaneous resource restriction (col.

5 lines 10-50, col. 7 lines 30-45), and multiplexing the compressed video streams on

a single transmission line (col. 4 lines 35-50, see fig. 1 item 1 10, fig. 2).

Adams fails to show differentially converting the data to a desired depth of

compression and for degrading image based on a function of the types of data to be

displayed and a function of client capabilities.

Day discloses differentially converting the data to a desired depth of

compression and for degrading image based on a function of the types of data to be

displayed and a function of client capabilities (Col. 5, lines 65-Col. 6, lines 25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify Adams to encode/compress data according to

client device capability, as taught by Day, so to ensure that all of the multimedia

segments have common operating characteristics thereby accommodating with the

bit rate/transfer rate of the communication link and the "play rate" and resolution of

the display device and moreover avoiding any possibly data loss and any

undesirable effects during the video or audio or other multimedia presentation.

Regarding Claim 31, Adams in view of Day further shows converting each

stream into a different frame rate (Day; Col. 4, lines 10-17).

Regarding Claim 32, Adams shows that the frame quality maybe increased

depending on bandwidth availability (col. 2 lines 12-17).

Regarding Claims 33 and 48, Adams shows that the resource restriction comprises bandwidth restrictions (col. 5 lines 10-50, lines 64-67).

Regarding Claims 34 and 49, Adams in view of Day (Col. 6, lines 9-25) further shows that the resource restriction comprises a computing restriction.

Regarding Claim 35, Adams shows that the data sources comprise display commands, or instructions on how the data will be displayed (col. 1 lines 50-59, col. 2 lines 42-44; Col.. 4 lines 58-59). This 'application data' or 'auxiliary packets' are data that describe how the 'frame' of MPEG data is displayed. The data describing what frames are to be displayed or what bit rate to use are the display commands. The information tells the receiver how to create, or display, the image at the user site.

Regarding Claim 37, "providing an indication of the content with the data sources" reads VOD list with explicit link to each video stored (Day; Col. 4, lines 30-65+).

Regarding Claim 38, Adams shows that it is possible to analyze, based on the display commands, such as bit rate and application data to determine the content of the data, such as a slow moving scene (col. 2 lines 12-17).

Regarding Claim 39, Adams shows that applications data, generated by software, indicates information about the content of the data (col. 1 lines 50-59, col. 2 lines 42-44; Col. 4 lines 58-59).

Regarding Claim 43, Adams in view of Day further shows wherein the instantaneous resource restriction comprises an instantaneous computing resource restriction (Day; Col. 5, lines 63-Col. 6, lines 25).

Regarding claim 44, Adams in view of Day (Col. 4, lines 10-17; Col. 5, lines 65-Col. 6, lines 25) further shows wherein the differentially converting comprises converting each data source to a different frame rate compressed video stream.

Regarding Claims 45 and 47, Adams (col. 2 lines 12-17) in view of Day shows that the frame quality may be increased/decrease depending on bandwidth availability.

Regarding Claim 50, Adams shows using asynchronous compression and MPEG-2 encoding (col. 5 lines 10-27, synchronous transfer mode and variable bit rate as a result of MPEG-2). Furthermore, MPEG-2 type encoding inherently only sends data when a change has occurred in the image, as expressed in a P or B frame.

Regarding Claim 51, Adams (col. 5 lines 45-67, col. 6 lines 1-50, controlling

the fullness of the encoding buffer B based on bandwidth availability) in view of Day

(Col. 6, lines 20-31) further shows using a variety of data buffers, which queue and

delay generation of compressed data to accommodate the instantaneous resource

restriction.

Regarding claim 52, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines

30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein a same compression

depth is achieved for each client receiving compressed video streams from the

system.

Regarding claim 53, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines

30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein the content includes

a hint corresponding to how the content should be compressed and multiplexed

based upon a minimum bandwidth requirement needed by the client.

Regarding claim 54, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines

30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein the hint comprises a

hint regarding a maximum quality reduction that can be applied to the content.

Regarding claim 55, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines 30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein the types of data to be displayed include parts of a display.

Regarding Claim 56, although icons and menus can be sent in the systems of Adams in view of Day, Adams in view of Day does not specifically disclose wherein the parts of the display include at least one of the icon and a menu bar.

Official Notice is taken that icons and/or menu bar to be part of the display is notoriously well known in the art. Therefore, it would have been obvious to modify the system of Adams in view of Day to have icons/menu bar to be part of the display so to provide to user a friendly GUI for navigating among items on the display.

2. Claim 57 rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (US 6044396) in view of Day et al. (US5996015), and further in view of Lavallee (6,215,904).

Regarding Claim 57, Adams shows compressing and sending computer application and control data in addition to video data (col. 4 lines 50-65,Application data). Although text can be sent in the systems of Adams in view of Day, they fail to specifically state creating more compression for text data.

Lavallee shows creating different compression for various data, depending if it is image or text data (col. 3 lines 10-67, selecting an encoding scheme based on the content of an image, such as text or pictures). It would have been obvious to modify

the system of Adams in view of Day with the ability to compress text to a greater

extent, as taught by Lavallee so that the most efficient data was sent to the user.

3. Claims 59-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Adams (US 6044396) in view of Day et al. (US5996015), and further in view of

Mussman et al. (US 6243388).

Regarding claims 59-60, Adams in view of Day, all describe digital data

packet streaming systems that require some type of client computer address in order

to send appropriate data (such as an IP address/'digital subscriber number'), but

they fail to specifically state using an 'customer identifier'.

Mussman clearly shows using a customer identifier to locate clients in a

broadband system (col. 11, lines 1-10, col. 12 lines 15-37, customer units identified

by subscriber number).   It would have been obvious to one of ordinary skill in the art

at the time the invention was made, and is well known in the art, to modify Adams in

view of Day with a client/device subscriber number so as to uniquely identify and

communicate with a specific client/device.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.   In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (571) 272-7305. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht
04/14/2006

HAI TRAN
PRIMARY EXAMINER